Rocky Flats Environmental Technology Site

RADIOLOGICAL CHARACTERIZATION PACKAGE

SECURITY CLUSTER CLOSURE PROJECT

REVISION 0

March 1, 2001

Prepared by: Jay M. Britten / _____ 2/27/01.
Radiological Engineer

Reviewed by: Duane Parsons / _____ 2/27/01.
RISS Facility Characterization Coordinator

Reviewed by: Steve Luker / _____ 3/1/01.
Quality Assurance

Approved by: Vern Guthrie / _____ 3/1/01.
Closure Project Facility Manager

1/22

Radiological Characterization Package
Security Cluster (B762, B762A, B792, B792A, 550, 761, and 901)

Building:	Security Cluster	Last Updated:	Date:	2/28/01	Time:	800	Initials:	JMB

* This characterization package was prepared in accordance with MAN-077-DDCP, D&D Characterization Protocols(07/26/00), and MAN-127-PDSP, Pre-Demolition Survey Plan for D&D Facilities (02/14/01).
* PDSP Data Quality Objectives were used to develop this characterization package.

Instructions:

1. Verify characterization activities are on the Plan-of-the-Day (POD).
2. Perform a Pre-Evolution Brief and/or Job Task Brief in accordance with the Site Conduct of Operations Manual.
3. Verify personnel have appropriate training for the applicable tasks they will be performing.
4. Comply with RWP requirements, if applicable.
5. Comply with JHA and facility PPE requirements, as applicable.
6. Inform the Facility Manager, or designee prior to starting characterization activities.
7. Follow applicable characterization and sampling procedures.
8. Notify Wackenhut Security (x2444) and the Shift Supervisor (x2914), and verify appropriate safety precautions/requirements are followed prior to accessing facility roofs.
9. Coordination with the Environmental Restoration Program organization will be required to further characterize underneath facility foundations and slabs prior to removal.
10. Collect and maintain all characterization paperwork in the Project File(s).
11. All radiological surveys shall be conducted in accordance with the sampling and instruction forms included in Security Cluster Package Identification numbers 01-0006, 01-0007, and 01-0008. Sample locations are denoted on scaled maps attached to each survey package.

Class 1 Areas

Survey Area	Survey Unit	Class	Description	Total m^2	Floor m^2	Scan m^2	TSA	Smears	Media	Class Justification
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Class 1 Areas identified in this characterization unit. Historical Site Assessment and process knowledge indicate no need for this classification.
			Class 1 Totals	0	0	0	0	0	0	

Radiological Characterization Package
Security Cluster (B762, B762A, B792, B792A, 550, 761, and 901)

Class 2 Areas

Survey Area	Survey Unit	Class	Description	Total m^2	Floor m^2	Scan m^2	TSA	Smears	Media	Class Justification
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Class 2 Areas identified in this characterization unit. Historical Site Assessment and process knowledge indicate no need for this classification.
			Class 2 Totals	0	0	0	0	0	0	

Radiological Characterization Package
Security Cluster (B762, B762A, B792, B792A, 550, 761, and 901)

Class 3 Areas

Survey Area	Survey Unit	Class	Description	Total m^2	Floor m^2	Scan m^2	TSA	Smears	Media	Class Justification
A	SEC-A-001	3	Interior of B762, B762A, B792, and B792A	1820	516	182	**15-random 45-biased** Fifteen total sample points per building interior	**15-random 45-biased** Fifteen total sample points per building interior	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the $DCGL_W$. Historical Site Assessment and process knowledge of this unit provide a high degree of confidence that no individual measurement will exceed the $DCGL_W$. A 10% scan will be biased towards areas of greater potential for contamination (e.g., *floors and lower walls*). Additional biased measurements have been prescibed and will be collected to ensure all building surfaces are adequately characterized. These additional biased measurements are above and beyond requirements set forth in the RFETS PDSP.
A	SEC-A-002	3	Interiors of B550, B761, and B901 [1st Floor - Walls, Floor, Ceiling] [2nd Floor - Walls, Floor, & Ceiling] [3rd Floor - Walls, Floor, & Ceiling]	661	86	67	**15-random 30-biased** Fifteen total sample points per building interior	**15-random 30-biased** Fifteen total sample points per building interior	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the $DCGL_W$. Historical Site Assessment and process knowledge of this unit provide a high degree of confidence that no individual measurement will exceed the $DCGL_W$. A 10% scan will be biased towards areas of greater potential for contamination (e.g., floors and lower walls). Additional biased measurements have been prescibed and will be collected to ensure all building surfaces are adequately characterized. These additional biased measurements are above and beyond requirements set forth in the RFETS PDSP.
B	SEC-B-003	3	Exterior of B762, B762A, B792, and B792A [including roof], **AND** Exterior of B550, B761, B901 [including roof]	2613	137	262	**15-random 90-biased** 15 total sample points per building exterior	**15-random 90-biased** 15 total sample points per building exterior	0	Areas are not expected to contain, or have ever contained, any residual radioactivity greater than the $DCGL_W$. Historical Site Assessment of this unit provides a high degree of confidence that no individual measurement will exceed the $DCGL_W$. A 10% scan will be biased towards areas of greater potential for contamination (e.g., lower walls & roof areas). Additional biased measurements have been prescibed and will be collected to ensure all building surfaces are adequately characterized. These additional biased measurements are above and beyond requirements set forth in the RFETS PDSP.
			Class 3 Totals	**5094**	**739**	**511**	**210**	**210**	**0**	
All Class Areas			**All Class Totals**	**5094**	**739**	**511**	**210**	**210**	**0**	

* Larger numbers of biased TSA and Removable sample locations provided to adequately characterize facility surfaces.

Radiological Characterization Package
Security Cluster (B762, B762A, B792, B792A, 550, 761, and 901)

Non-Impacted Areas

Survey Area	Survey Unit	Class	Description	Total m^2	Floor m^2	Scan m^2	TSA	Smears	Media	Class Justification
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Non-Impacted Areas identified in this characterization unit. Historical Site Assessment and process knowledge indicate no need for this classification.
			Non-Impacted Totals	0	0	0	0	0	0	

Rocky Flats Environmental Technology Site

CHEMICAL CHARACTERIZATION PACKAGE

SECURITY BUILDING CLUSTER CLOSURE PROJECT

REVISION 0

January 30, 2001

Prepared by: _____
Industrial Hygiene

Prepared by: _____
Environmental Compliance

Reviewed by: _____ 2/1/01
Quality Assurance

Reviewed by: _____ 2/1/01
RISS Facility Characterization Coordinator

Approved by: _____ / FOR FRANK GIBBS FOR 400 AREA
Closure Project Facility Manager

Revised to Rev 1. DAP 2/2/01

CHEMICAL CHARACTERIZATION PACKAGE

BUILDING(s): SECURITY CLUSTER (550, 761, 901, 762, 762A, 792, 792A)

Note: This characterization package was prepared in accordance with MAN-077-DDCP, D&D Characterization Protocols, and MAN-127-PDSP, Pre-Demolition Survey Plan for D&D Facilities.

ASBESTOS		
Sample Location	**Estimated Number of Samples**	**Sample location and justification/rational**
550, 761 & 991	10 per building	Asbestos inspections have not been performed. As a result, a comprehensive invasive inspection must be performed in accordance with PRO-563-ACPR, Asbestos Characterization Procedure. Suspect materials include drywall, base cove, floor insulation and roof.
762 & 792	11 per building	Asbestos inspections have not been performed. As a result, a comprehensive invasive inspection must be performed in accordance with PRO-563-ACPR, Asbestos Characterization Procedure. Suspect materials include window caulking, roof and flashing, ceiling tile, floor tile, base cove and drywall.
762A & 792A	24 per building	Asbestos inspections have not been performed. As a result, a comprehensive invasive inspection must be performed in accordance with PRO-563-ACPR, Asbestos Characterization Procedure. Suspect materials include ceiling tile, drywall, base cove, roof and flashing, pipe insulation, linoleum, exterior soffit texture, transite, window caulking.
Total Samples:	100	The exact sample numbers and locations will not be determined until a comprehensive, invasive inspection is performed in accordance with 40 CFR Part 763, Subpart E. Sample locations will be specified on sample maps during characterization efforts. Samples will be obtained in accordance with PRO-653-ACPR, Asbestos Characterization Procedure and 40 CFR 763.

BERYLLIUM		
Sample Location	**Number of Samples (smears)**	**Sample location and justification/rational**
550, 761, 901, 762, 762A, 792, 792A	14 – biased	There is no documented supporting data or process history that proves beryllium was not used or stored in these buildings. Therefore, two biased samples from each of the seven building will be obtained. Buildings have similar history and can be treated as one area.
Total Samples:	14	Samples will be obtained at locations specified on sample map(s) in accordance with PRO-536-BCPR, Beryllium Characterization Procedure. Biased sample locations will correspond with the most probable areas of dust accumulation (including beryllium dust), assuming airborne deposition.

LEAD		
Sample Location	**Number of Samples**	**Sample location and justification/rational**
Security Cluster, all locations	0	Lead sampling is not required for Security Cluster buildings. All paint will remain a part of the infrastructure during demolition and therefore does not require sampling per Environmental Waste Compliance Guidance No. 27, Lead Based Paint (LBP) and LBP Debris Disposal. In addition, these buildings were constructed in 1982, 1983, and 1989, and lead based paint is not probable. Sampling for lead for IH requirements

Revised to Rev 1 2/1/01

		will be at the discretion of the demolition contractor.
Total Samples:	0	

RCRA/CERCLA CONSTITIUENTS		
Sample Location	**Number of Samples**	**Sample location and justification/rational**
Security Cluster	0	No hazardous activities that may have resulted in RCRA or CERCLA constituents occurred in the Security Cluster buildings, therefore sampling for RCRA/CERCLA constituents is not required. **Note: These buildings do contain materials that may need to be managed as Regulated Waste during D&D activities including mercury thermostats, fluorescent light bulbs, circuit boards, and HVAC systems. Care will need to be taken to ensure these wastes are managed properly.**
Total Samples:	0	

PCBs		
Sample Location	**Number of Samples**	**Sample location and justification/rational**
Security Cluster	0	The Security Cluster buildings were constructed in 1982, 1983, and 1989. PCB contamination in the structural debris is not probable. No sampling is required. **Note: These buildings do contain materials that may need to be managed as Regulated Waste during D&D activities, such as light ballasts. Care will need to be taken to ensure these wastes are managed properly.**
Total Samples:	0	

* PCB ballasts, fluorescent light bulbs, potential mercury switches in thermostats, and mercury vapor light bulbs shall be removed prior to demolition.

Revised to Rev 1 DMP 2/21/01

KAISER ◆ HILL
COMPANY

INTEROFFICE MEMORANDUM

DATE: March 1, 2001

TO: C. K. Bean, RISS Radiological Safety Manager, B116, X2069
J. W. Mahaffey, Central Radiological Engineering Manager, T130 B, X2131

FROM: J. M. Britten, RISS Characterization Radiological Engineer, Bldg. 116, X3050

SUBJECT: REQUEST FOR APPROVAL OF ALPHA-ONLY SURVEYS FOR SECURITY CLUSTER BUILDING SURFACES– JMB-003-01

Upon reviewing the Historical Site Assessment Report for the Security Cluster (B762, B762A, B792, B792A, B550, B761, and B901), RISS Radiological Engineering has determined that these facilities meet the requirements set forth in Technical Basis Document 00162. No unusual isotopes were identified in the HSA (i.e., pure beta emitters, mixed fission products). Therefore, it is requested that alpha-only surveys be performed in these indicated areas for the release of building surfaces. Please review the attached documentation, and if the content meets requirements, provide your approval signature in the space provided. The original of this memorandum will be kept in the project history files located in B116.

APPROVED:

Curtis Bean 3-5-01
C. K. Bean Date
RISS Radiological Safety Manager

J. W. Mahaffey 3/12/01
J. W. Mahaffey Date
Central Radiological Engineering Manager

JMB:nll

cc:
D. Parsons
Project History File

"SAFETY IS CRITICAL TO OUR SUCCESS"

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D&D RISS Facility Characterization
Radiological Historical Site Assessment Report

Facility ID: B762, B762A
Anticipated Facility Type (1, 2, or 3): Type I

Refer to attached site drawing for facility location.
This facility specific Historical Site Assessment (HSA) has been performed in accordance with:
D&D Characterization Protocol, RFETS MAN-077-DDCP, latest version, and
Facility Disposition Program Manual, RFETS MAN-076-FDPM, latest version

Radiological Contaminants of Concern

Radiological Contaminants
Describe any potential, likely, or known radiological production or storage locations:

No known chemical or radioactive materials ever present in indicated facilities.

Describe any potential, likely, or known spill locations (e.g., known leaking sealed radioactive sources, leaking waste drums, potentially contaminated drains, etc.):

N/A

Describe methods in which spills were mitigated, if any:

N/A

Describe any potential, likely, or known isotopes of concern (e.g., weapons grade plutonium, uranium isotopes, pure beta emitters, mixed fission products, etc.):

No known pure beta emitting isotopes or mixed fission products ever located in these facilities.

Describe any potential, likely, or known external facility contamination (e.g., stack release points, unfiltered ventilation, facility's physical location to known site releases, etc.):

N/A

Project RE Signature — Date 3/6/01

Central RE Signature — Date 3/12/01

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HISTORICAL FACILITY OVERVIEW
FOR BUILDING 762, GUARD POST, PORTAL 1

Building 762 Guard Post, Portal 1, was constructed in approximately 1983. Building 762 was designed and constructed as a Guard Post and vehicular access control point to the protected area. It is located at the southwest corner of Ninth Street and the Patrol Road in the protected area. The Guard Post allowed access to the protected area when security was enhanced for the plutonium buildings by the construction of the security zone. Building 762 is approximately 16' wide X 23' long X 11' 6" high. Building 762 accounts for approximately 368 square feet of floor space. The building has a 4" poured concrete floor and twin-tee prestressed concrete roof/deck which is sloped to the west for roof drainage and the roof has a 4' overhang on all four sides. The roof covering construction is 2" lightweight concrete over the twin-tee, Styrofoam insulation, felt, asphalt and gravel. The building's outer walls are 6" thick poured steel reinforced concrete construction. Building 762 Guard Post was designed with all bullet proof glass, gun or weapon, slots in all four outer walls, and a double steel plate access door with bullet proof glass. Building 762 has a Men's/Women's Restroom. Building 762 has emergency power to it and an UPS system for critical equipment in case of emergency power failure. The interior walls of Building 762 have been insulated, covered with drywall, and painted. All the partition walls used 2" X 4" metal studs to support the drywall. Lead-based paints and asbestos may have been used during the construction of this facility. Building 762 has a drop acoustical tile ceiling that has been insulated. Radiometric detection equipment is located in the personnel walkway and the vehicular access driveway that is controlled from Building 762.

There is no information to indicate that PCB containing equipment was ever installed or stored in Building 762. No known chemical or radioactive materials were ever stored in Building 762. A WSRIC, either current or deleted, could not be found for Building 762. Known or historical information does not indicate Building 762 was ever a RCRA storage or RCRA 90-day accumulation area. Building 762 was not constructed on any known IHSS/PAC land or soils.

Building 762 was always used as a Guard Post, Portal 1. The facility currently is operational.

HISTORICAL FACILITY OVERVIEW
FOR BUILDING 762A, PERSONNEL ACCESS CONTROL 707 (PACS 1)

Building 762A, Personnel Access Control (PACS 1), was constructed in approximately 1989. It is located to the south of Building 762 and extends into the Building 707 parking lot. Building 762A was designed and constructed as an enhanced personnel control point to the protected area. The enhanced security consisted of, metal detectors, airport type X-Ray machine for hand carried items, and a badge and hand scanner to gain access to a turnstile to enter the protected area. After leaving the turnstile or entering it from the protected area personnel pass through a radiometric detector. The building has 3 X-ray machines, 7 metal detectors, 5 turnstiles, and 3 radiometric detectors. Building 762A is approximately 60' wide X 70' long X 17' high. Building 762A accounts for approximately 4200 square feet of floor space. The building has a 6" poured concrete floor. Bolted to the floor is a pre-engineered steel structure with a metal panel roof that slopes to the east and west for drainage. The building's outer walls consist of gypsum sheathing over insulation bating between metal studs covered with insulating board. The exterior insulation board was then covered with a trawled on stucco finish. The buildings interior walls are gypsum board over the batting insulation and have been painted. The Building 762A operators' work station has been hardened with a steel plate placed over the drywall and the windows in two sides of the room are bullet proof glass. Building 762A has emergency power to it and an UPS system for critical equipment in case of emergency power failure. Building 762A has a Men's/Women's Restroom. All the partition walls used 2" X 4" metal studs to support the drywall. Lead-based paints and asbestos may have been used during the construction of this facility. Building 762A has a drop acoustical tile ceiling. The building has its' own emergency generator. HVAC is supplied by an electric heat pump.

There is no information to indicate that PCB containing equipment was ever installed or stored in Building 762A. No known chemical or radioactive materials were ever stored in Building 762A. A WSRIC, either current or deleted, could not be found for Building 762A. Known or historical information does not indicate Building 762A was ever a RCRA storage or RCRA 90-day accumulation area. Building 762A was not constructed on any known IHSS/PAC land or soils.

Building 762A was always used as PACS 1. The facility currently is operational.

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D&D RISS Facility Characterization
Radiological Historical Site Assessment Report

Facility ID: B762, B762A
Anticipated Facility Type (1, 2, or 3): Type I

Refer to attached site drawing for facility location.
This facility specific Historical Site Assessment (HSA) has been performed in accordance with:
D&D Characterization Protocol, RFETS MAN-077-DDCP, latest version, and
Facility Disposition Program Manual, RFETS MAN-076-FDPM, latest version

Radiological Contaminants of Concern

Radiological Contaminants

Describe any potential, likely, or known radiological production or storage locations:

None known

Describe any potential, likely, or known spill locations (e.g., known leaking sealed radioactive sources, leaking waste drums, potentially contaminated drains, etc.):

Describe methods in which spills were mitigated, if any:

Describe any potential, likely, or known isotopes of concern (e.g., weapons grade plutonium, uranium isotopes, pure beta emitters, mixed fission products, etc.):

Describe any potential, likely, or known external facility contamination (e.g., stack release points, unfiltered ventilation, facility's physical location to known site releases, etc.):

[signature] 2/24/04

Signature Date

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D&D RISS Facility Characterization
Radiological Historical Site Assessment Report

Facility ID: B792 & B792A
Anticipated Facility Type (1, 2, or 3): Type I

Refer to attached site drawing for facility location.
This facility specific Historical Site Assessment (HSA) has been performed in accordance with:
D&D Characterization Protocol, RFETS MAN-077-DDCP, latest version, and
Facility Disposition Program Manual, RFETS MAN-076-FDPM, latest version

Radiological Contaminants of Concern

Radiological Contaminants
Describe any potential, likely, or known radiological production or storage locations:

No known chemical or radioactive materials ever stored in indicated facilities.

Describe any potential, likely, or known spill locations (e.g., known leaking sealed radioactive sources, leaking waste drums, potentially contaminated drains, etc.):

N/A

Describe methods in which spills were mitigated, if any:

N/A

Describe any potential, likely, or known isotopes of concern (e.g., weapons grade plutonium, uranium isotopes, pure beta emitters, mixed fission products, etc.):

No know pure beta emitting isotopes or mixed fission products ever stored in indicated facilities.

Describe any potential, likely, or known external facility contamination (e.g., stack release points, unfiltered ventilation, facility's physical location to known site releases, etc.):

N/A

Project RE / Signature — Date: 3/6/01

Central RE / Signature — Date: 3/2/01

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HISTORICAL FACILITY OVERVIEW
FOR BUILDING 792, GUARD POST, PORTAL 3

Building 792 Guard Post, Portal 3, was constructed in approximately 1983. Building 792 was designed and constructed as a Guard Post and personnel control point to the protected area. It is located at the southwest corner of the personnel walkway from Building 792A and the Patrol Road in the protected area. The Guard Post allowed access to the protected area when security was enhanced for the plutonium buildings by the construction of the security zone. Building 792 is approximately 16' wide X 18' long X 11' 6" high. Building 792 accounts for approximately 288 square feet of floor space. The building has a 4" poured concrete floor and twin-tee prestressed concrete roof/deck which is sloped to the west for roof drainage and the roof has a 4' overhang on all four sides. The roof covering construction is 2" lightweight concrete over the twin-tee, Styrofoam insulation, felt, asphalt and gravel The building's outer walls are 6" thick poured steel reinforced concrete construction. Building 792 Guard Post was designed with all bullet proof glass, gun or weapon, slots in all four outer walls, and a double steel plate access door with bullet proof glass. Building 792 has a Men's/Women's Restroom. Building 792 has emergency power to it and an UPS system for critical equipment in case of emergency power failure. The interior walls of Building 792 have been insulated, covered with drywall, and painted. All the partition walls used 2" X 4" metal studs to support the drywall. Lead-based paints and asbestos may have been used during the construction of this facility. Building 792 has a drop acoustical tile ceiling that has been insulated. Radiometric detection equipment is located in the personnel walkway that is controlled from Building 792.

There is no information to indicate that PCB containing equipment was ever installed or stored in Building 792. No known chemical or radioactive materials were ever stored in Building 792. A WSRIC, either current or deleted, could not be found for Building 792. Known or historical information does not indicate Building 792 was ever a RCRA storage or RCRA 90-day accumulation area. Building 792 was not constructed on any known IHSS/PAC land or soils.

Building 792 was always used as a Guard Post, Portal 1. The facility currently is operational.

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HISTORICAL FACILITY OVERVIEW
FOR BUILDING 792A, PERSONNEL ACCESS CONTROL 771 (PACS 3)

Building 792A, Personnel Access Control (PACS 3), was constructed in approximately 1989. It is located to the north of Building 792 and extends into the Building 771 parking lot. Building 792A was designed and constructed as an enhanced personnel control point to the protected area. The enhanced security consisted of, metal detectors, airport type X-Ray machine for hand carried items, and a badge and hand scanner to gain access to a turnstile to enter the protected area. After leaving the turnstile or entering it from the protected area personnel pass through a radiometric detector. The building has 1 X-ray machine, 2 metal detectors, 2 turnstiles, and 2 radiometric detectors. Building 792A is approximately 25' wide X 69' long X 14' high. Building 792A accounts for approximately 1625 square feet of floor space. The building has a 6" poured concrete floor. Bolted to the floor is a pre-engineered steel structure with a metal panel roof that slopes to the east and west for drainage. The building's outer walls consist of gypsum sheathing over insulation bating between metal studs covered with insulating board. The exterior insulation board was then covered with a trawled on stucco finish. The buildings interior walls are gypsum board over the batting insulation and have been painted. The Building 792A operators' work station has been hardened with a steel plate placed over the drywall and the windows in two sides of the room are bullet proof glass. Building 792A has emergency power to it and an UPS system for critical equipment in case of emergency power failure. Building 792A has a Men's/Women's Restroom. All the partition walls used 2" X 4" metal studs to support the drywall. Lead-based paints and asbestos may have been used during the construction of this facility. Building 792A has a drop acoustical tile ceiling. The building has its' own emergency generator. HVAC is supplied by an electric heat pump.

There is no information to indicate that PCB containing equipment was ever installed or stored in Building 792A. No known chemical or radioactive materials were ever stored in Building 792A. A WSRIC, either current or deleted, could not be found for Building 792A. Known or historical information does not indicate Building 792A was ever a RCRA storage or RCRA 90-day accumulation area. Building 792A was not constructed on any known IHSS/PAC land or soils.

Building 792A was always used as PACS 3. The facility currently is operational.

D&D RISS Facility Characterization
Radiological Historical Site Assessment Report

Facility ID: B792 & B792A
Anticipated Facility Type (1, 2, or 3): Type I

Refer to attached site drawing for facility location.
This facility specific Historical Site Assessment (HSA) has been performed in accordance with:
D&D Characterization Protocol, RFETS MAN-077-DDCP, latest version, and
Facility Disposition Program Manual, RFETS MAN-076-FDPM, latest version

Radiological Contaminants of Concern

Radiological Contaminants

Describe any potential, likely, or known radiological production or storage locations:

None Known

Describe any potential, likely, or known spill locations (e.g., known leaking sealed radioactive sources, leaking waste drums, potentially contaminated drains, etc.):

Describe methods in which spills were mitigated, if any:

Describe any potential, likely, or known isotopes of concern (e.g., weapons grade plutonium, uranium isotopes, pure beta emitters, mixed fission products, etc.):

Describe any potential, likely, or known external facility contamination (e.g., stack release points, unfiltered ventilation, facility's physical location to known site releases, etc.):

[signature] 2/26/01

Signature Date

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D&D RISS Facility Characterization
Radiological Historical Site Assessment Report

Facility ID: 550, 761, 901 (Guard Towers)
Anticipated Facility Type (1, 2, or 3): Type I

Refer to attached site drawing for facility location.
This facility specific Historical Site Assessment (HSA) has been performed in accordance with:
D&D Characterization Protocol, RFETS MAN-077-DDCP, latest version, and
Facility Disposition Program Manual, RFETS MAN-076-FDPM, latest version

Radiological Contaminants of Concern

Radiological Contaminants
Describe any potential, likely, or known radiological production or storage locations:

No known radioactive materials were ever stored in any of the indicated facilities.

Describe any potential, likely, or known spill locations (e.g., known leaking sealed radioactive sources, leaking waste drums, potentially contaminated drains, etc.):

N/A

Describe methods in which spills were mitigated, if any:

N/A

Describe any potential, likely, or known isotopes of concern (e.g., weapons grade plutonium, uranium isotopes, pure beta emitters, mixed fission products, etc.):

No pure beta emitting isotopes or mixed fission products ever known to be located in indicated facilities.

Describe any potential, likely, or known external facility contamination (e.g., stack release points, unfiltered ventilation, facility's physical location to known site releases, etc.):

N/A

Project RE / Signature — Date 3/6/01

Central RE / Signature — Date 3/12/01

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HISTORICAL FACILITY OVERVIEW
FOR BUILDING 761, GUARD TOWER NUMBER 1

Building 761, Guard Tower Number 1, was constructed in approximately 1983 as part of the enhanced security zone surrounding the plutonium buildings. Building 761 was designed and constructed as a Guard Tower to provide an elevated line of sight and firing platform for the fenced portion of the zone from Building 762 to the top of the hill above Building 995. Building 761 is approximately 12' square X 45' high. Building 761 accounts for approximately 144 square feet of floor space. The building has a 4" thick reinforced concrete floor first floor. The building's outer walls are 8" thick reinforced concrete block construction with the void space filled with grout. The walls reinforced concrete foundation is tied into a 15' square, 14 inch thick reinforced concrete block 3' below grade. An open metal grating stair leads up to the equipment room level at 26' above the ground floor. The floor at this level is an 8" thick reinforced concrete slab. The walls at this level are the same construction as below this level and are approximately 10' high to the next level. This level is the observation deck. Its' floor is a 8" thick reinforced concrete slab that supports 8"thick reinforced concrete walls to the bottom of the windows. Building 761 was designed with all bullet proof glass, gun or weapon, slots in all four outer walls. The roof of the tower is supported on all four corners with square metal structural tubing. It is a 7" thick reinforced concrete slab 15' square that slopes away from the side where the building entrance is. The roof is covered with rigid insulation and topped with EDPM membrane. A searchlight is mounted on the roof and operated from the observation deck. The tower has emergency power to it and an UPS system for critical equipment in case of emergency power failure. The interior walls of observation deck have been insulated, covered with drywall, and painted. Lead-based paints and asbestos may have been used during the construction of this facility.

There is no information to indicate that PCB containing equipment was ever installed or stored in Building 761. No known chemical or radioactive materials were ever stored in Building 761 A WSRIC, either current or deleted, could not be found for Building 761. Known or historical information does not indicate Building 761 was ever a RCRA storage or RCRA 90-day accumulation area. Building 761 was not constructed on any known IHSS/PAC land or soils.

Building 761 was always used as a Guard Tower. The facility currently is not operational.

HISTORICAL FACILITY OVERVIEW
FOR BUILDING 901, GUARD TOWER NUMBER 2

Building 901, Guard Tower Number 2, was constructed in approximately 1983 as part of the enhanced security zone surrounding the plutonium buildings. Building 901 was designed and constructed as a Guard Tower to provide an elevated line of sight and firing platform for the fenced portion of the zone from Building 792 to the top of the hill above Building 995. Building 901 is approximately 12' square X 45' high. Building 901 accounts for approximately 144 square feet of floor space. The building has a 4" thick reinforced concrete floor first floor. The building's outer walls are 8" thick reinforced concrete block construction with the void space filled with grout. The walls reinforced concrete foundation is tied into a 15' square, 14 inch thick reinforced concrete block 3' below grade. An open metal grating stair leads up to the equipment room level at 26' above the ground floor. The floor at this level is an 8" thick reinforced concrete slab. The walls at this level are the same construction as below this level and are approximately 10' high to the next level. This level is the observation deck. Its' floor is a 8" thick reinforced concrete slab that supports 8"thick reinforced concrete walls to the bottom of the windows. Building 901 was designed with all bullet proof glass, gun or weapon, slots in all four outer walls. The roof of the tower is supported on all four corners with square metal structural tubing. It is a 7" thick reinforced concrete slab 15' square that slopes away from the side where the building entrance is. The roof is covered with rigid insulation and topped with EDPM membrane. A searchlight is mounted on the roof and operated from the observation deck. The tower has emergency power to it and an UPS system for critical equipment in case of emergency power failure. The interior walls of observation deck have been insulated, covered with drywall, and painted. Lead-based paints and asbestos may have been used during the construction of this facility.

There is no information to indicate that PCB containing equipment was ever installed or stored in Building 901. No known chemical or radioactive materials were ever stored in Building 901 A WSRIC, either current or deleted, could not be found for Building 901. Known or historical information does not indicate Building 901 was ever a RCRA storage or RCRA 90-day accumulation area. Building 901 was not constructed on any known IHSS/PAC land or soils.

Building 901 was always used as a Guard Tower. The facility currently is not operational.

HISTORICAL FACILITY OVERVIEW
FOR BUILDING 550, GUARD TOWER NUMBER 3

Building 550, Guard Tower Number 3, was constructed in approximately 1983 as part of the enhanced security zone surrounding the plutonium buildings. Building 550 was designed and constructed as a Guard Tower to provide an elevated line of sight and firing platform for the fenced portion of the zone from Building 792 to the top of the hill southwest of Building 371. Building 550 is approximately 12' square X 35' high. Building 550 accounts for approximately 144 square feet of floor space. The building has a 4" thick reinforced concrete floor first floor. The building's outer walls are 8" thick reinforced concrete block construction with the void space filled with grout. The walls reinforced concrete foundation is tied into a 15' square, 14 inch thick reinforced concrete block 3' below grade. An open metal grating stair leads up to the equipment room level at 16' above the ground floor. The floor at this level is an 8" thick reinforced concrete slab. The walls at this level are the same construction as below this level and are approximately 10' high to the next level. This level is the observation deck. Its' floor is a 8" thick reinforced concrete slab that supports 8"thick reinforced concrete walls to the bottom of the windows. Building 550 was designed with all bullet proof glass, gun or weapon, slots in all four outer walls. The roof of the tower is supported on all four corners with square metal structural tubing. It is a 7" thick reinforced concrete slab 15' square that slopes away from the side where the building entrance is. The roof is covered with rigid insulation and topped with EDPM membrane. A searchlight is mounted on the roof and operated from the observation deck. The tower has emergency power to it and an UPS system for critical equipment in case of emergency power failure. The interior walls of observation deck have been insulated, covered with drywall, and painted. Lead-based paints and asbestos may have been used during the construction of this facility.

There is no information to indicate that PCB containing equipment was ever installed or stored in Building 550. No known chemical or radioactive materials were ever stored in Building 550 A WSRIC, either current or deleted, could not be found for Building 550. Known or historical information does not indicate Building 550 was ever a RCRA storage or RCRA 90-day accumulation area. Building 550 was not constructed on any known IHSS/PAC land or soils.

Building 550 was always used as a Guard Tower. The facility currently is not operational.

D&D RISS Facility Characterization
Radiological Historical Site Assessment Report

Facility ID: 550, 761, 901 (Guard Towers)
Anticipated Facility Type (1, 2, or 3): Type I

Refer to attached site drawing for facility location.
This facility specific Historical Site Assessment (HSA) has been performed in accordance with:
D&D Characterization Protocol, RFETS MAN-077-DDCP, latest version, and
Facility Disposition Program Manual, RFETS MAN-076-FDPM, latest version

Radiological Contaminants of Concern

Radiological Contaminants

Describe any potential, likely, or known radiological production or storage locations:

Part of PA construction 1952's. Should not be a radiological concern.

Describe any potential, likely, or known spill locations (e.g., known leaking sealed radioactive sources, leaking waste drums, potentially contaminated drains, etc.):

Describe methods in which spills were mitigated, if any:

Describe any potential, likely, or known isotopes of concern (e.g., weapons grade plutonium, uranium isotopes, pure beta emitters, mixed fission products, etc.):

Describe any potential, likely, or known external facility contamination (e.g., stack release points, unfiltered ventilation, facility's physical location to known site releases, etc.):

Signature

2/26/01
Date

22/20